In the Drawings:

Please amend FIGs. 19A, 19B, 19C, 25A, 25B, 25C, 27B, 29A, and 36A, as shown in the attached marked-up drawings, in which changes are made and circled in red. A set of replacement FIGs. 19A, 19B, 19C, 25A, 25B, 25C, 27B, 29A, and 36A is also attached.

REMARKS

FIGs. 19A, 19B, 19C, 25A, 25B, 25C, 27B, 29A, and 36A stand objected to as not being designated by a legend such as "prior art". Applicant has amended these drawings to add a "Prior Art" legend, and submits that the objection has been overcome.

Claims 1-2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Patent Paper RD 339051 (RD '051) or Rostoker et al. (Rostoker). Applicant respectfully traverses the rejection, as neither reference teaches or suggests the features of claims 1-2.

Independent claim 1 defines, among other things, a plurality of interconnects including a plurality of Y's respectively connecting cells in clusters of three cells each, wherein the cells within the clusters are interconnected. Applicant has amended claim 1 for additional clarity, but submits that the scope of the claim has not been changed. Particularly, "Y's connecting the cells" has been replaced by "a plurality of Y's, each of the Y's respectively connecting the cells", and "cells in the clusters" has been changed to "cells within the clusters".

RD '051 fails to teach a plurality of interconnects including a plurality of Y's. While RD '051 shows diagonal wiring (Fig. 1c, page 2 of translation), it does not teach a single Y connecting three cells, let alone a plurality of Y's. RD '051 mentions "y wiring", but this refers to the use of x- and y-oriented wiring (i.e., rectilinear wiring), as opposed to three wiring planes at 0°, 60°, and -60°.

RD '051 also fails to teach or suggest that Y's respectively connect cells in clusters of three cells each. The Office Action cites "clusters 106", but this number is not found in the reference supplied by the Examiner (though "106" refers to example clusters in the present specification).

Rostoker fails to teach or suggest at least a plurality of Y's. FIG. 75 appears to show a single set of three interconnects including diagonal interconnects (2098, 2100, 2102), but not a plurality of Y's. Similarly, Rostoker fails to teach or suggest Y's connecting the cells in clusters (plural) of three cells each. Further, the interconnects 2098, 2100, 2102 connect four cells, not three.

For at least these reasons, Applicant respectfully submits that independent claim 1 and dependent claims 2 and 5-8 are allowable over the references of record, including RD '051 and Rostoker. Applicant thus requests reconsideration and withdrawal of the rejection.

Claims 3, 7, and 8 separately stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rostoker. Applicant respectfully traverses the rejection for at least the reasons stated above regarding independent claim 1. Additionally, regarding claim 3, Rostoker fails to teach or suggest at least that nodes of Y's connecting clusters of a lower level are interconnected by Y's of a higher level. The Office Action does not indicate where Rostoker allegedly teaches this feature, but instead merely points out that Rostoker teaches multilevel arrays. Rostoker fails to teach or suggest a plurality of Y's (see FIG. 75), let alone that these Y's have nodes that are interconnected by Y's of a higher level.

Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over RD '051 in view of Terasawa. Applicant respectfully traverses the rejection for at least the reasons stated above regarding independent claim 1. Additionally, Terasawa fails to remedy the deficiencies of RD '051. Regarding the rejection of claim 6 based on official notice, Applicant respectfully traverses, and request citation of a reference teaching the claimed feature.

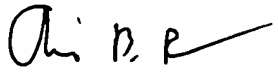
Additionally, Applicant submits new claims 24-30, defining various features of embodiments of the present invention. Applicant submits that no new matter is added by these new claims. Applicant further submits that these claims are allowable over the references of record, including RD '051 and Rostoker. New claims 24, 25, and 30 are believed to be allowable for at least the reasons stated above regarding independent claim 1, plus additional reasons. New claims 26-29 are believed to be allowable for at least the reason that neither RD '051 nor Rostoker teaches or suggest at least a plurality of interconnects including Y's connecting cells in clusters of three adjacent cells each.

The Examiner has indicated that claims 4 and 19 would be allowable if rewritten in independent form. Applicant acknowledges and appreciates the Examiner's statement. At this time, Applicant elects to keep claims 4 and 19 in dependent form pending the Examiner's reply to the remarks submitted herein.

For at least these reasons, Applicant submits that the application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact Applicant's attorney at the number listed below if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By: 

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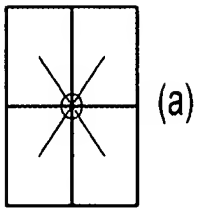

FIG. 19A

PRIOR ART

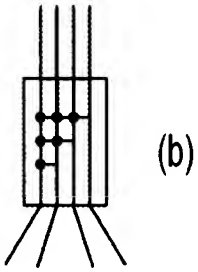

FIG. 19B

PRIOR ART

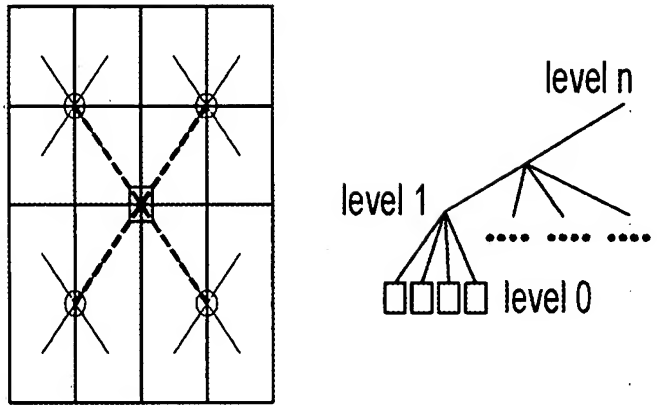

FIG. 19C

PRIOR ART

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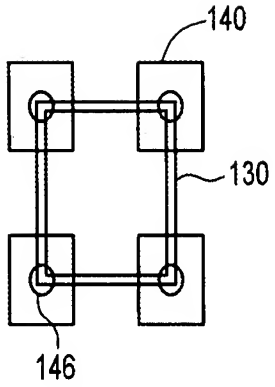
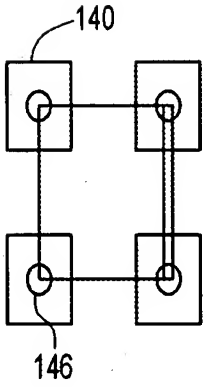


(a)

FIG. 25A

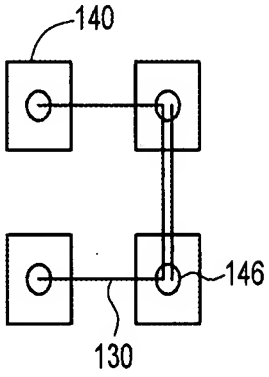
PRIOR ART



(b)

FIG. 25B

PRIORART



(c)

FIG. 25C

PRIOR ART

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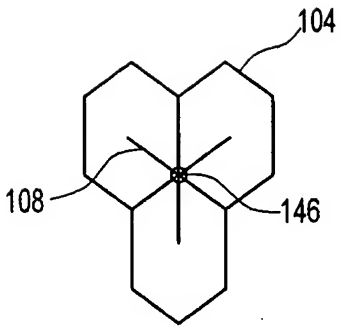


FIG. 27A

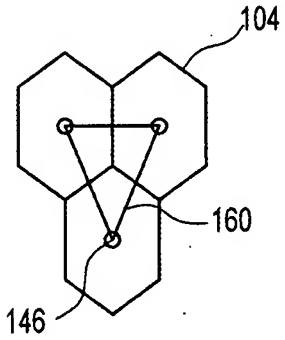


FIG. 27B

PRIOR ART

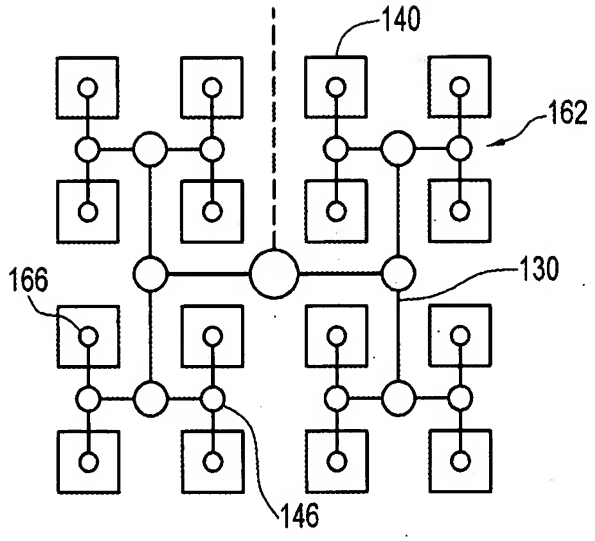


FIG. 29A

PRIOR ART

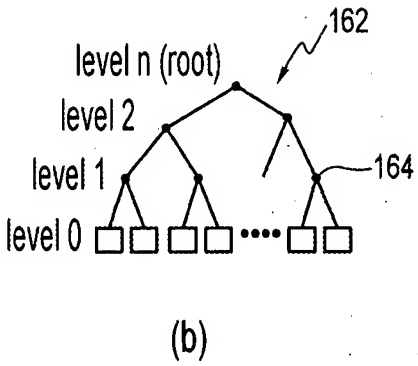
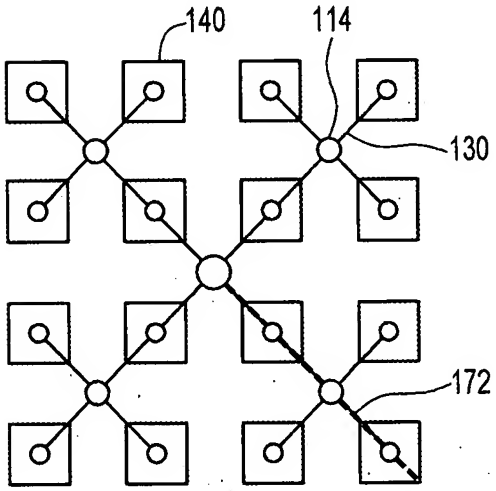


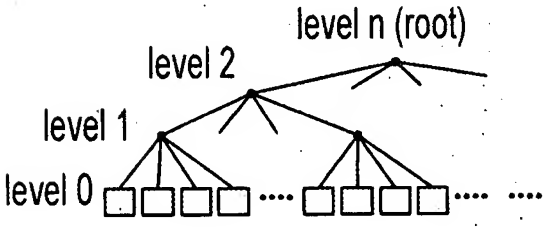
FIG. 29B



(a)

FIG. 36A

PRIOR ART



(b)

FIG. 36B